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The Black & Decker Corporation
Mail Stop TW199
Towson, MD 21286

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| EXAMINER |
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REESE, DAVID C

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| ART UNIT | PAPER NUMBER |
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3677

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07/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/511,070

Applicant(s)

JONES, STEVEN VICTOR

Examiner

David C. Reese

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10 and 12-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8, 10 and 12-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

THIS FINAL ACTION IS RESPONSIVE TO THE AMENDMENT FILED 4/28/2008.

- Claims 9 and 11 were canceled.
- Claims 1, 12, and 19 were amended.
- Claims 1-8, 10, and 12-20 are pending.

Claim Rejections - 35 USC § 102 and 103

[1] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[2] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[3] Claims 1-3, 5-8, 10, 12-14, 16-18, and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith GB 2332722, or in the alternative, under 35 U.S.C. 103(a) as obvious over Smith GB 2332722, in view of Kubicki, US-2,435,144 or Huck, US-2,030,169.

As for Claims 1 and 12, Smith discloses of a peel type blind rivet assembly comprising:
an elongate tubular body (2) having a shank disposed about a shank axis and
a preformed body head (8) at a first end thereof and an expandable portion (16) at the opposed end of the shank remote from the body head, said elongate tubular body defining a mandrel accepting bore/aperture (20) having a constant inner diameter, and an external surface having a constant outer diameter (from claim 12), said body defining a plurality of elongate slots (12), which slots terminate remote from said first end; and

a mandrel (4) having a stem extending through and co-axial with said tubular body (2), which mandrel further having a mandrel head (26) having a maximum external diameter greater than the internal diameter of the body (2), said mandrel head (26) having a shoulder portion (32 to the top of 28) defining a perpendicular bearing surface (32 is perpendicular as is the top of 28; both of which are perpendicular to the stem) which is substantially perpendicular to the stem, said perpendicular bearing surface (the perpendicular bearing surface as defined by 32 and the top of 28, is in contact with the opposed end) being in contact with the opposed end, said stem having a first cylindrical portion adjacent the head (30) having a first generally constant diameter and a second cylindrical portion (4) having a second constant diameter greater than the first constant diameter (30).

While the examiner believes that Smith teaches of a perpendicular bearing surface being in contact with the opposed end, if it is held that the bearing surface is not perpendicular (at least

where it touches the opposed end); Kubicki, US-2,435,144 or Huck, US-2,030,169 teach of a rivet that possesses a tubular body with a head fitted with a mandrel with a stem, head, and a shoulder portion having a perpendicular surface being in contact with an opposed end of the tubular body.

Therefore, it would have been obvious to one of ordinary skill in the art, having the disclosures of Smith and Kubicki or Huck before him at the time the invention was made, to modify the shoulder of the mandrel head of Smith to have a perpendicular bearing surface in contact with an opposed end of the tubular body, as in Kubicki (fig. 20) or Huck (fig. 3). One would have been motivated to make such a combination because for one such a combination with the shoulder directly against the opposed end of the tubular body allows the female and male members to be positively locked together during assembling thereof, so as to provide a lock which will prevent relative axial movement thereof after the rivet setting operation, as taught by Kubicki or Huck (col. 1-2 of Huck); as well as the user desiring the deformation that accompanies the body when the rivet with such a structure is set within a workpiece. Further, it would have been obvious to a person of ordinary skill in the art to have modified the shoulder of Smith as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, because the perpendicular bearing surface of the shoulder of a head of a mandrel stem as claimed has the properties predicted by the prior art of Kubicki or Huck, it would have been obvious to make the modification to the shoulder of Smith in order to gain the commonly understood benefits and applications of such an adaptation and/or modification.

Re: claims 2 and 13, Smith discloses wherein the opposed end of the shank presents a flat surface (end of “12”) perpendicular to said shank axis (see fig. 1).

Re: claims 3 and 6, 14 and 17, Smith discloses wherein looking at the slope of the bottom edge of the groove, identified as 18 in Fig 1, it is clear the slot increases in length as it extends from an outer surface to an inner surface (see also page 3 lines 7-10 and page 6 lines 1-4).

Re: claims 5 and 16, Smith discloses on page 3 lines 21-23 of equally radially spaced slots.

Re: claim 7-8, 18, Smith discloses constant thickness of walls along axial length, and that the external diameter of the body is constant along its axial length (see fig. 1).

Re: claim 10, Smith discloses wherein the maximum diameter of the head equal to the OD of the shank (fig. 1).

Re: claim 19, Smith discloses wherein the mandrel stem extends through and is co-axial with said tubular body (Fig 1). The mandrel has a first portion (at 30) disposed adjacent the shoulder, said 1st portion defining a cylindrical surface having a generally constant diameter.

Re: claim 20, Smith discloses wherein said mandrel defines a breakneck 36 defines 3 angled surfaces, (see Fig 1 and compare to applicant's "136" in Fig 3).

[4] Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as obvious over Smith GB 2332722 in view of view of Kubicki, US-2,435,144 or Huck, US-2,030,169 and in further view of Palm, US-5,183,357.

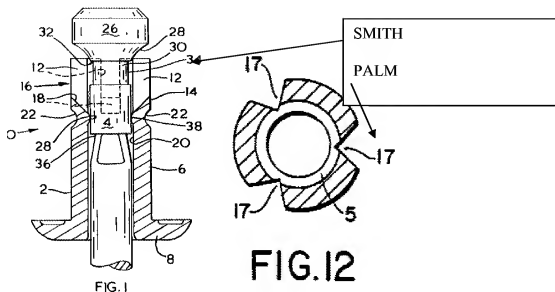
Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claims 4 and 15, Smith in view of Kubicki or Huck teach of a peel type blind rivet with an elongate tubular body (2) having a shank (6) and preformed head (8) and expandable portion (16) at end opposite head. The expandable portion comprises plurality of slots (12). As discussed above, however, Smith is not specific that a pair of side walls defining the at least one slot are curved.

Palm shows slots (17) extending in a width from an outer surface to an inner surface of said tubular body in Fig 12 and col 5 lines 26-61, and further teaches in Palm col 5 that the sidewalls can be curved:

lines (17) can be selected differently. It is therefore possible to form the notches or grooves in a triangular, 40 polygonal, trapezoidal, or circular cross section. Trapezoidal-shaped grooves are shown in FIG. 9. trian-

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Smith in view of Kubicki or Huck and Palm before him at the time the invention was made, to modify Smith in view of Kubicki or Huck as taught by Palm to include slots of specific known geometries from a finite group of known geometries, in order to obtain an easier to peel rivet with smooth and more-flush 'collar' formed by the peeled-back sections, and optimum locking, as taught by Palm in col 3 and col 5 lines 35-61.



Response to Arguments

[5] Applicant's amendment, see amendment and remarks filed 4/28/2008, with respect to the rejection(s) of claim(s) under Smith, have been fully considered. However, upon further consideration of the amended claims, a new ground(s) of rejection is made in view of Smith GB 2332722, or in the alternative, under 35 U.S.C. 103(a) as obvious over Smith GB 2332722, in view of Kubicki, US-2,435,144 or Huck, US-2,030,169. Consequently, all arguments are considered moot to said new grounds of rejection. Please also note the additional notice of reference cited showing the prevalence in the art of a shoulder of a mandrel head with a perpendicular bearing surface.

Conclusion

[6] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

[7] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached at (571) 272-6987. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Reese

/D. C. R./
Examiner, Art Unit 3677

/Robert J. Sandy/
Primary Examiner, Art Unit 3677